California Public Employees' Retirement System

Parallel Valuation and Certification of the Actuarial Valuation of the Judges' Retirement System II

as of June 30, 2007

Report Completed In Satisfaction of
Task 6 of Contract 2003-3236

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Overview

EFI Actuaries has completed a parallel valuation of the Judges' Retirement System II (JRS II, the System) as of June 30, 2007. As a result of our analysis, we are able to certify that the liabilities and costs computed in this Valuation are reasonable and were computed in accordance with generally accepted actuarial principles.

An issue arose with regard to the amortization policy adopted in the Valuation. The current policy amortizes the unfunded actuarial accrued liability over 30 years as a level percentage of payroll. The payroll computation assumes growth in the JRS II active membership as a result of the retirement of JRS I judges. This practice is explicitly prohibited in preparing accounting disclosures under Statement 27 of the Governmental Accounting Standards Board (GASB).

At present, the impact of the amortization policy is not material. JRS II is nearly fully funded, and the amortization payment represents only about 3% of the total employer cost. However, it is almost certain that in some future valuation the amortization payment will become a more significant portion of total cost; therefore, the amortization policy should be modified to comply with GASB Statement 27.

The supporting calculations and the above issues are discussed in more detail below.

Background

Judges Retirement System II provides pensions and ancillary benefits to judges who were elected or appointed on or after November 9, 1994. Judges elected or appointed prior to that date are covered under Judges Retirement System I (JRS I). JRS I and JRS II are separate retirement plans with separate memberships, separate asset pools, and no financial interrelationship.

Annual valuations of JRS II are completed using the Aggregate Entry Age Normal Funding Method. Each year total employer and member contributions are computed so that member pensions are funded as a level percentage of pay during their working lives. The pricing process is based on certain assumptions regarding the rate of investment return on System assets, annual pay increases, inflation, turnover and retirement rates, and longevity of members.

A judge who has reached 65 and is credited with 20 or more years of service under the System, or who has reached age 70 with five or more years, will be awarded either a lifetime pension or will be paid the balance of his or her monetary credits. The retiring judge makes the choice. The pension benefit is 3.75% of highest 12 months pay per year of service, up to 75%. The monetary credit balance is the accumulation of 8% of pay in employee contributions and 10% of pay designated as employer contributions from date of election or appointment. Death, disability, and termination benefits are also paid from the System.

Judges retiring under JRS II are entitled to a portion of the employer portion of post-retirement health premiums from the System. However, this benefit was not included in the JRS II Valuation or in the EFI parallel valuation: It is assumed to be financed by the employers outside of the JRS II System.

The System is financed by employer and employee contributions and the investment return on System assets. Participants contribute 8% of pay.

The valuation date is June 30, 2007. Contributions are determined for the July 1, 2008 through June 30, 2009 fiscal year.

Actuarial assumptions used to compute System liabilities and normal costs include:

- An 7.25% annual rate of investment return, net of all expenses;
- Annual salary increases of 3.25%;
- Annual inflation of 3.0%;
- The overall payroll is projected to grow due to the interaction of the average annual salary increase of 3.25% and an increase in the projected number of actives. The number of actives is projected to increase each year by the projected decrease in the number of actives in the Judges' Retirement System (JRS I).
- Retirement between the ages of 65 and 70 after five years of service;
- Termination rates from 0.225% to 0.9% per year, depending on age and service; and
- Retired mortality rates approximately the same as the 1994 Group Annuity Mortality Tables (Static) for Males and Females published by the Society of Actuaries.

Methodology

Parallel valuation and certification involves two steps:

- Independent Parallel Valuation

  In order to verify the correctness of calculations in the JRS II Valuation, EFI conducted an independent, parallel valuation using its own actuarial model. This independent valuation determines whether actuarial assumptions and methods are applied properly and yield the reported results. When significant differences are observed, test lives and other special computations may be employed to determine their source.

- Review of Methods and Assumptions

  The actuarial assumptions and methods employed in the JRS II Valuation were reviewed by EFI in order to establish that they meet acceptable standards of actuarial practice.

Parallel Valuation

The JRS II Valuation was performed using the CalPERS Valuation System to compute liabilities and costs. EFI validated the CalPERS actuarial calculations by creating an *independent* actuarial model to develop the valuation results. The only element common to the two models was the participant data; the EFI model was developed separately, without reference to the system used for the staff Valuation.

Table 1 below shows the principal results of the parallel valuations. The employer cost as a percentage of covered payroll computed by EFI is very close to that computed by PERS staff.

Table 1: Parallel Valuation Results

	JRS II Valuation	EFI Parallel Valuation	Difference
1. Present Value of Benefits for Active Members at Entry Age	$ 445,018,521	$ 455,497,476	2.35%
2. Present Value of Pay at Entry Age	1,607,022,217	1,659,093,385	3.24%
3. Normal Cost % Pay (1) ÷ (2)	27.692%	27.455%	(0.86)%
4. Present Value of Benefits for Active Members at Attained Age	$ 698,698,834	$ 711,925,439	1.89%
5. Inactive Liability at Attained Age	5,339,671	5,581,420	4.53%
6. Total Fully Projected Liability (4) + (5)	$ 704,038,505	$ 717,506,859	1.91%
7. Present Value of Future Pay	N/A	1,544,176,088	N/A
8. Present Value of Future Employee Contributions	118,173,019	123,534,087	4.54%
9. Present Value of Future Employer Normal Costs)	290,882,926	300,419,458	3.28%
10. Actuarial Accrued Liability (6) – (8) – (9)	294,982,560	293,553,314	(0.48)%
11. Assets	267,604,460	267,604,460	
12. Unfunded Accrued Liability (UAL) (10) – (11)	27,378,100	25,948,854	(5.22)%
13. Employer Normal Cost ((3) – 8%) × (16)	41,808,063	40,116,841	(4.05)%
14. Amortization of UAL*	1,136,043	1,075,907	(5.29)%
15. Total Employer Cost (13) + (14)	$ 42,944,106	$ 41,192,748	(4.08)%
16. Projected Covered Payroll	212,309,886	206,203,242	(2.88)%
17. Employer Cost as % of Covered Payroll [(15) ÷ (16)]	20.227%	19.977%	(1.24)%

*** Using the same methodology as used by CalPERS**

Review of Methods and Assumptions

Overall, the actuarial methods and assumptions adopted by CalPERS to compute JRS II liabilities and costs are reasonable and in accordance with generally accepted actuarial principles. However, the method used to amortize the unfunded actuarial accrued liability appears to violate current accounting standards. While the issue is not presently material, it should be addressed.

Accounting Standards

The JRS I System is closed to new entrants, and as members of that system retire, their replacements enter the JRS II System, causing it to grow. In order to compute a cost for the System that is a level percentage of (growing) payroll, the amortization factors take into account the increasing population and payroll for JRS II.

This is at odds with GASB Statement 27, which states in paragraph 10(f)(3) that "the assumed payroll growth rate should not include an assumed increase in the number of active plan members; however, projected decreases in that number should be included if no new members are permitted to enter the plan".

The impact of a change in the amortization method for JRS II would be quite small. The Plan is nearly 100% funded, and the entire amortization payment currently represents just 3% of the total employer contribution. Nonetheless, as the JRS II matures, there will be years in which the unfunded accrued liability is material, and an amortization method compliant with GASB standards should be in place.